

characters to the corresponding bones in the skeleton of the common Fin-Whale, now in the Alexandra Park; only they were  $2\frac{1}{2}$  inches shorter: their length was 16 inches. Rather behind their middle is a short strong angular projection; the posterior or shorter ramus is subcylindrical and truncated; the anterior or longer ramus is thin and flattened.

The other bones, as far as I could see them, confirmed the diagnosis of the species made from the external characters. There were 15 pairs of ribs, the last rib well-developed and attached to the transverse process of the corresponding vertebra; the first had no capitular process, but resembled that at the Rosherville Gardens, figured by Dr. Murie in these 'Proceedings' (1865, p. 224).

The lumbar vertebræ were fourteen in number. The tail is not yet sufficiently cleaned to count its bones. The sternum was more regularly cross-like than in any other *Physalus* I have seen, but still maintained its usual character of being broader than long, the dimensions being 23 and 22 inches respectively. The ends of the first ribs were articulated to its hinder ramus—their anterior borders being in close contact, and connected by strong fibrous tissue with the posterior margins of the projecting lateral arms of the sternum.

Although the animal appeared to be adult, a large portion of the posterior end of the upper border of the scapula, as much as a foot in depth, consisted only of cartilage.

One other observation may be worth recording, which is, that in taking off the skin from the bones of the forearm, on the inner surface, in the interval between the radius and ulna, were seen some well-developed muscles (the red fibres of which reached nearly to the lower end of these bones) ending in strong tendons, passing to, and radiating out on, the palmar surface of the hand. Circumstances prevented me from following out the details of their arrangement and distribution; but as in the Porpoise and those few other Cetaceans of which the limbs have been dissected no muscles are found below the elbow, and as they can, apparently, have little or no function, their presence is of considerable interest, and this notice may direct attention to their fuller investigation on some future occasion.

12. NOTICE ON RHODOPHYTON, A NEW GENUS OF ALCYONIADÆ, FOUND ON THE COAST OF CORNWALL. BY DR. J. E. GRAY, F.R.S., V.P.Z.S., F.L.S., ETC.

My friend Mr. Couch, of Polperro, has kindly sent to me for inspection a drawing which he has made of a fleshy Coral that Mr. W. Langham dredged on the coast of Cornwall, stating that he believed it differed from any described in Dr. Johnston's work, and thought it might be *Alcyonium exos* of Gmelin (the *Alcyonium palmatum* of Pallas), which it certainly is not. He has since sent the specimen to me for the British-Museum collection; and I have compared it with all the species that I know, and with the descriptions

of the different exotic species described by MM. Milne-Edwards and Haimés in the 'Histoire Naturelle des Coralliaires,' and I am inclined to believe that it has not been described by them.

### RHODOPHYTON.

Coral-flesh cellular, covered with a hard continuous calcareous coat, contracted at the base, expanded above, and divided into several oblong lobes or branches, covered with short cylindrical tubes with a circular mouth. Polypes half retractile, forming when retracted a white tubular termination to the cells. The more developed cells of the polypes, especially those at the end of the lobes, are longitudinally grooved.

This genus differs from the typical *Alcyonia*, or *Lobulariæ*, taking *A. digitatum* for the type, in the outer surface being covered with a continuous crustaceous coat, and in each of the polypes being enclosed in a distinct tubular sheath projecting from the general surface. It differs from all the *Alcyonia* in the polype being only half retractile; that is to say, the upper part of the body of the animal is fleshy and projects beyond the end of the calcareous tube—where the tentacles are retracted, making a white or whitish apex to the polype-tubes.



*Rhodophyton couchii.*

### RHODOPHYTON COUCHII.

*Hab.* British Seas, Cornwall, near Polperro (*Jonathan Couch, Esq.; Brit. Mus.*).

Dr. Hassall, in the 'Annals and Magazine of Natural History,' vol. vii. p. 285, thought he had discovered *Alcyonium rubrum*\* of Müller in Dublin Bay; but in the 'Annals and Magazine of Natural History,' vol. xi. p. 112, probably influenced by some observation of Mr. Macgillivray, he described this Coral as a new species, under the name of *Alcyonium glomeratum*, with the following diagnosis:—"Polypidom massive, of no very defined outline; colour a deep uniform red, the shade of which approaches to vermilion." He states that it is often to be observed growing on the same shell as *A. digitatum*, "each possessing its peculiar colour."

\* From an error of the pen, or of the press, it is called *Alcyonidium rubrum*.

Thus far his observation appears to be referable to a typical *Alcyonium*, or *Lobularia*, with sunken cells and completely retractile polypes; and I do not see why it may not be *A. rubrum* of Müller.

Mr. Couch, in the third part of the 'Cornish Fauna,' by his late son and himself, has described and figured a Coral under the name of *Alcyonium sanguineum* (t. 13. f. 1). Mr. Couch informs me that he regards the one he last sent to me as quite different from the one he described. Unfortunately the specimen he described does not appear to have been preserved; so that I cannot examine the type.

Mr. Couch's description is copied by Dr. Johnston in his 'History of British Zoophytes' (vol. i. p. 178). The generic form seems to agree pretty well with the Coral under discussion; but he specially describes the *cells as imbedded*, and the figure must be that of a typical *Alcyonium*.

Dr. Johnston, in the work before referred to, considers the *Alcyonium sanguineum* of Couch to be only a synonym or redescription of the *A. glomeratum* of Hassall, and describes it under the latter name, giving Hassall's diagnosis as the specific character; but I think that if any one will compare the description of Couch with the diagnosis of Hassall, he will see that they are most probably distinct.

Couch specially observes, "The protuberances in the *Alcyonium digitatum* are generally not very numerous; do not divide low down, but arise from the sides and edges of the larger lobes; are always stout, somewhat compressed, and more closely resembling the teat of a cow than the human finger." In *A. sanguineum* "the lobes are very numerous, and divide nearly as low as the base; they are elongated, cylindrical, and very nearly resemble the little finger both in shape and size." This description, in some respects, agrees with *Rhodophyton couchii*. But Mr. Couch particularly says, "the surface is rather rough, coriaceous, occupied by numerous spicula; the star-shape depressions are numerous, slightly depressed, yellow, marked with eight rays; the cells are imbedded;" which is the description of a true *Lobularia*, and very unlike the tubular cells and semiretractile polypes of *Rhodophyton*.

I may observe that Milne-Edwards, in the 'Coralliaires' (vol. i. p. 118), following Dr. Johnston, regards *Alcyonium glomeratum* and *A. sanguineum* as the same species, adopting the former name; but the character of the section to which he refers it, and which he gives as the character of the species, is copied from Couch's description of *A. sanguineum*, and does not in the least fit the description or the name which Hassall gives to his species. This shows how one mistake leads to many.

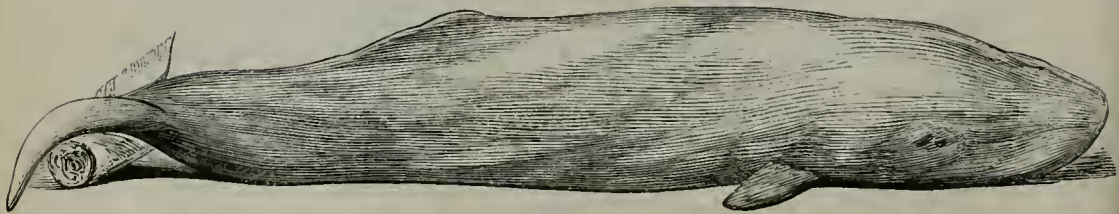
I am inclined to believe that *A. digitatum*, *A. rubrum*, Müller & Hassall (= *A. glomeratum*, Hassall), and *A. sanguineum* are all good species, and quite distinct from *Rhodophyton couchii*.

13. NOTICE OF A NEW SPECIES OF SPERM-WHALE BELONGING TO THE GENUS EUPHYSETES OF MACLEAY. BY GERARD KREFFT, CURATOR AND SECRETARY, AUSTRALIAN MUSEUM, SYDNEY, CORR. MEMB. ZOOL. SOC.

On Monday last, information reached me that a "Colt Whale" had been stranded at Manly Beach; and suspecting that it might be *Euphysetes grayii*, of which this Museum is in possession of the original skeleton, I immediately repaired to the spot, and found my supposition verified, as far as I could then judge, the toothless upper jaw, and the long, sharp-pointed, hook-like teeth of the lower jaw leaving no doubt in my mind as to the genus. With a view of exhibiting this rare visitor, some of the fishermen had carried the animal into a dark shed, strongly objecting to its removal for the purpose of photographing it. It was measured, with the following results:—

	ft.	in.
Total length .....	10	8
Breadth of tail .....	2	8½
Pectoral fin.....	1	7
Around body behind paddles.....	6	2
————— the eye.....	5	1
Before dorsal fin, or hump .....	5	3

Fig. 1.



Colour black, yellowish beneath. The head is short and thick, rather broad, and the snout receding somewhat, like that of a shark (fig. 2). The mouth is small, the upper jaw toothless; but after removing the flesh two rows of holes, communicating with each other more or less, were observed; and I believe that teeth were probably imbedded therein at the time of birth, and subsequently shed. This, of course, is only surmise; but as no holes were noticed when flesh covered the gums, the holes could not be for the reception of the teeth in the lower jaw. Looking at the skull from above, it shows at first a remarkable resemblance to that of *Euphysetes grayii*, MacLeay, but the sides of the spermatic cavity, so sharp in Gray's Whale, are rounded off in the present species; and the blow-hole, which is fully 1½ inch in diameter in Gray's animal, is not quite an inch in the new one. The ridge dividing the cavity in this new Whale is almost formed into ivory, and many spots of the same substance are im-